

UM-SJTU PHYSICS LABORATORY VP241  
DATA SHEET (EXERCISE 3)

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Group: \_\_\_\_\_

Date: \_\_\_\_\_

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**NOTICE.** Please remember to show the data sheet to your instructor before leaving the laboratory. The data sheet will not be accepted if the data are recorded with pencil or modified by correction fluid/tape. If a mistake is made in recording a datum item, cancel the wrong value by drawing a fine line through it, record the correct value legibly, and ask your instructor to confirm the correction. Please remember to take a record of the precision of the instruments used. You are required to hand in the original data with your lab report, so please keep the data sheet properly.

QUANTITY	PRECISION
DC voltage	$\pm(0.5\% + 0.1)V$
DC current	$\pm(1.5\% + 0.1)mA$
distance	$\pm 0.1 cm$
solar power	$\pm 10 W/m^2$

Table 1. Multimeter precision.

length $\pm 0.1 cm$	width $\pm 0.1 cm$
21.00	26.11

Table 2. Measurement data for area.

100cm	391	275	168	381	250	207
126cm	1	2	3	4	5	6
$P_1 [W/m^2]$	207	139	136	210	135	142
$P_2 [W/m^2]$	203	192.5	174.3	163.0	159.2	243

Table 3. Measurement data for solar power.

144cm	169	108	112	161	110	111
126.0	95.8					
single device at _____ cm	single device at _____ cm	series	parallel			
$U_{oc} [V]$	8.69	7.71	16.42	8.21		
$I_{sc} [mA]$	44.3	46.5	45.1	90.0		

Table 4. Measurement data for  $U_{oc}$  and  $I_{sc}$ .

Instructor's signature: \_\_\_\_\_

